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**Sepiolite from Northern Caucasus.** D. P. Serdyuchenko. *Doklady Akad. Nauk S.S.S.R.* 69, 577-580 (1980). Sepiolite ("gornyl pukh" meer-schaum) is common in silicified serpentinites near Malka River, often with preservation of the structure of the primary basic rocks. Veinlets with opal, chalcedony, and quartz are frequent, often with excellent crystals of rock crystal, or geodes of amethyst, citrine, or smoky quartz, associated with scalenohedral calcite. The carbonate is usually older than the sepiolite in which it is embedded, in characteristic ovoids, indicating the replacement of the carbonate by the siliceous sponges. The general habit of the fibrous sepiolite is similar to that of chrysotile-actinolite, in "metacolloidal" forms. Colorless;  $2V = 44-50^\circ$ , optical character neg; the fibers are oriented parallel to  $\gamma$ ;  $n_\gamma = 1.520$ ;  $n_\alpha = 1.510$ . The chem. analysis (after deduction of  $\text{CaCO}_3$  and a low  $\text{Fe}_2\text{O}_3$  content of 0.3 to 0.9%) corresponds to the formula  $2\text{MgO} \cdot 3\text{SiO}_2 \cdot 1.5$  to  $3.0 \text{H}_2\text{O} + n\text{H}_2\text{O}$ . The isomorphous replacement of  $3 \text{Mg}^{2+}$  by  $2 \text{Al}^{3+}$  is typical for the sepiolite-palygorskite series. Sepiolite contg.  $\text{Al}_2\text{O}_3$  is not more elastic or flexible. The heating curves show distinct endothermic effects at  $150^\circ$  (adsorbed  $\text{H}_2\text{O}$ ),  $330$  to  $380^\circ$  (resolite  $\text{H}_2\text{O}$ ),  $700$  to  $750$  to  $830^\circ$  (constitution  $\text{H}_2\text{O}$ ). The amorphous decomposition products react with an exothermic effect at  $840$  to  $890^\circ$  (weaker if  $\text{CaCO}_3$  is admixed, the reaction is observed at  $775$  to  $810^\circ$ ). The x-ray patterns show above  $900^\circ$  clinopentastite and free  $\text{SiO}_2$ . The genesis of the Caucasian sepiolite in the serpentine rocks is typically metasomatic. W. Fitel

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Chemical composition and constitution of manganese andalusite (viridine). D. P. Serdyukhepko, *Zapiski Vsesoyuz. Mineral. Obshchestva* (Mem. soc. russe mineral. 78, No. 2, 131-5 (1949)).—Viridine occurs in cryst. schists from Timptonsk, Yakutiya, A.S.S.R. The mineral is vividly green colored and has a strong pleochroism. The color is, however, not detd. by the presence of  $MnO_2$  as was previously assumed, but by  $FeO$ , while Mn is only present as bivalent cation.  $Mn^{++}$  generally exceeds  $Fe^{+++}$  by far in its coloring power, but the spectrophotometric analysis of this viridine occurrence shows only the characteristic absorption of  $Fe^{+++}$  silicates.  $MnO$ , on the other hand, has practically no influence on the visible absorption of such minerals. The x-ray diagram of the Yakutiya viridine is identical with that of andalusite. S. believes that  $Mn^{++}$  may replace Al ions in octahedral coordination. The prismatic {110} cleavage of andalusite is in agreement with the  $[AlO_4]$  chains in its structure parallel to the c axis. Also the formation of muscovite from andalusite advances along these chains. The chem. analysis of the Yakutiya viridine gives  $SiO_2$  32.35,  $TiO_2$  0.35,  $Al_2O_3$  45.72,  $FeO$  0.60,  $Fe_2O_3$  0.04,  $MnO$  10.91,  $MgO$  0.21,  $CaO$  1.01,  $H_2O$  + 1.31%. S. recommends abandoning the name "viridine", since the similar name "viridite" is reserved for an Fe hydrosilicate of the chlorite group occurring in Monavila. W. Ficht

SERDYUCHENKO D.P.

Ilmenite and magnetite in gabbro-norites of the Ukraine.  
D. P. Serdyuchenko. *Mineralog. Sbornik, L'ov. Geol. CH*  
*Obshchestvo* 47: 821 (1950). The ilmenite-magnetite inter-  
growths are considered due to dissoen. of solid solus. of  
ilmenite and magnetite (titanomagnetite) during 2 mineral  
phases. Along certain zones in the magnetite there is  
evidence of martitization. Marie Siegrist

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SERDYUCHENKO D. P.

ISSN

CIA-RDP86-00513R001548010008-4"

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SERDYUCHENKO, D. P.

USSR/Minerals - Refractory

21 Jun 51

"Chrome-Spinelides From the Malka-River Ultrabasic  
Massif," D. P. Serdyuchenko, V. A. Moleva

"Dok Ak Nauk SSSR" Vol LXXVIII, No 6, pp 1203-1206

Describes 3 types of chromites occurring among ser-  
pentines of area near the Malka River and gives  
their chemical composition. Submitted by Acad D. S.  
Belyankin 16 Apr 51.

184T95

Sideroplesite in Devonian sediments of S. Tuman. G. P. Serdyukovskiy. *Zapiski Vsesoyuz. Mineral. (Zhurnal) (Mém. soc. russe minéral.)* 80, 72 (1964). The sideroplesite varies in its compn. from 70 to 85%  $\text{FeCO}_3$ ; 5 to 30%  $\text{MgCO}_3$ ;  $\text{CaO}$  is very low,  $\text{MnO}$  may attain 1.5%. It is widespread in grayish brown carbonate rocks, assoc. with calcite, goethite, Fe-rich anesite,  $\text{Al}(\text{OH})_3$  minerals (HCl sol.), quartz, and pyrite. It is also observed in varying amts. in kaolin-goethite oolitic ores. Optical properties:  $n = 1.782$ ;  $\gamma = 1.585$  to 1.610. The sideroplesite is metasomatic, derived from entirely replaced limestones. Typical are radial-spherulitic aggregates, with a pyrite grain in the center, and rhombohedral minute crystals lining the cavities. The sideroplesite was formed by recrystn. of colloidal sediments of  $\text{FeCO}_3$ - $\text{MgCO}_3$  material from chloride or bicarbonate solns. The Fe ores are derived from strongly decomp. submarine diabase sills and tuffs. Alkalies,  $\text{CaO}$ ,  $\text{SiO}_2$ , and  $\text{Al}_2\text{O}_3$  were greatly removed by the metasomatic processes, but a part of Fe was recombined with  $\text{SiO}_2$  and  $\text{Al}_2\text{O}_3$  to form the anesitic chlorite. The ore pptn. was therefore taking place in shallow waters or lagoons (Krotov, *ibid.* 72, 70-75 (1948). Similar conditions are observed in the transition from Middle to Upper Devonian of the W. and S. Ural, with the formation of goethite diaspor-chlorite rocks (Katavskii, Pashinskii District). W. Rittel



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CA

Chlorites from skarns of the Angary Basin. D. P. Sed-  
dyuchenko and I. N. Chirkov. *Doklady Akad. Nauk S.S.S.R.* 80: 429-432 (1951).—In contact-metamorphic lime-  
stones and dolomites of Silurian and Cambrian age, chlorite  
is abundant, assocd. with typical skarn minerals, as pyrox-  
enes, garnet, epidote, and younger hydrothermal magne-  
tite and calcite. Sometimes, the chlorite is intergrown with  
phlogopite; the genetic relation of this mica to chlorite,  
however, is not known; the phase boundaries are sharp.  
Generally the paragenesis of chlorite with magnetite and

calcite is younger than the pyroxene-garnet skarns. Non-  
tronite in foliated aggregates is sporadically assocd. with the  
chlorites. Two analyses of chlorites show their very low  
content in FeO and Fe<sub>2</sub>O<sub>3</sub>, while MgO, Al<sub>2</sub>O<sub>3</sub>, and SiO<sub>2</sub> are  
high; the Fe is concd. in the assocd. magnetite. The min-  
eral has  $\gamma = 1.570$ ;  $\alpha = 1.564$ , the interference colors are  
normal,  $2V$  is very small, optical character pos. (correspond-  
ing to prochlorite-corundophilite). The differential thermal  
curve shows endothermic effects at 500-600° (strong), 700°  
(weak), 820-850° (rather strong), and an exothermic re-  
action at 910 to 930°, corresponding to the crystn. of forster-  
ite. The effects at 140 to 170° which are characteristic for  
ferruginous chlorites of sedimentary origin are entirely  
absent. W. Entel



SERDYUCHENKO, D P

SERDYUCHENKO, D P

KHLORITY, IKH KHMICHESKAYA KONSTITUTSIYA I KLASSIFIKATSIYA (CHLORITES, THEIR  
CHEMICAL STRUCTURE AND CLASSIFICATION) MOSKVA, IZD-VO AKADEMII NAUK SSSR, 1953.  
337 P. ILLUS., DIAGRS., TABLES. (TRUDY INSTITUTA GEOLOGICHESKIKH NAUK. MINERALNOGO-  
GEOKHEMICHESKAYA SERIYA, VYP. 140 (NO. 14)) "LITERATURA": P. 331-(338)

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SERDYUCHENKO, D.P.

9 Magnesium parahalloysites and other montmorillonite minerals from Jurassic sediments of the northern Caucasus. D. P. Serdyuchenko. *Voprosy Petrog. i Mineral., Akad. Nauk S.S.R.* 2: 100-22 (1953); cf. *C.A.* 43, 2300e. — On the basis of the role of  $Si^{4+}$  in the tetrahedral coordination groups of layer-structure minerals, S. has given a classification of the minerals of the montmorillonite group in which are distinguished montmorillonites proper with 4.0-3.8 Si ions per formula unit; beidellites, with 3.8-3.6 Si ions; saponites, with 3.6-3.4 Si ions; and parahalloysites, with 3.4-2.1 Si ions per structural unit. In the weathered ultrabasic serpentinite massif of the River Malka region, especially in the valleys of River Malka, Gedmyshikh, Taza-Kol, and Rkhy-Kol, of lower Jurassic age, slates and clayey schists occur, intermixed with siderite, coal seams, and gypsum. There are observed green-colored so-called "nontronites," often in nonmineralic layers, with conchoidal fracture. The typical nontronite is dark-green, fine scaly, with  $\gamma = 1.579$ ;  $\beta = 1.574$ ;  $\alpha = 1.558$ ;  $2V = -58^\circ$ , weakly pleochroic. The chem. analysis corresponds to the formula  $(Na_{0.7}K_{0.3}Ca_{0.1})(Mg_{0.3}Fe(II)_{0.7}Ni_{0.1})(Al_{0.7}Ti_{0.3}Fe(III)_{0.1}Cr_{0.1})(Si_{2.2}Al_{0.8}O_{10})(OH)_2$ , which is a Mg parahalloysite, related to saponite. The differential-thermal curve shows endothermic effects at 90-150, 500-570, and 810-840°, and an exothermic effect at 870-890°. Another bright-green nontronite shows a strong pleochroism,  $\gamma = 1.568$ ,  $\beta = 1.582$ ,  $\alpha = 1.562$ ,  $2V = -57^\circ$ . The aggregate of this mineral is fine scaly and so well oriented that optically, it behaves like a monocrystal. The chem. compn. corresponds to the formula  $(Na_{0.7}K_{0.3}Ca_{0.1})(Mg_{0.3}Fe(II)_{0.7}Ni_{0.1})(Al_{0.7}Ti_{0.3}Fe(III)_{0.1}Cr_{0.1})(Si_{2.2}Al_{0.8}O_{10})(OH)_2$ , which is an Fe Mg parahalloysite, with a montmorillonitic

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CP

*D. P. Serdyukov*

differential-thermal curve (the exothermic peak is at 275°). A dark-green nontronite, but of weak pleochroism, with  $\gamma = 1.547$ ;  $\beta = 1.542$ ;  $\alpha = 1.536$ ; 2V large, optically neg., is a typical Mg parahalloysite of the type formula  $(\text{Ca}_{0.05})(\text{Mg}_{1.95}\text{Fe(II)}_{0.05}\text{Ni}_{0.05})(\text{Al}_{0.05}\text{Ti}_{0.05}\text{Fe(III)}_{0.05}\text{Cr}_{0.05})_2(\text{Si}_{1.95}\text{Al}_{0.05}\text{O}_{10})(\text{OH})_2$ . Its differential-thermal curve shows at 380-450° the combustion of some org. material. Highly interesting is an Fe Cr parahalloysite from the Gedmyshkh Valley, with  $n = 1.564$ , weakly pleochroic, of the compn.  $((\text{Na} + \text{K})_{0.10}\text{Ca}_{0.10})(\text{Mg}_{0.90}\text{Fe(II)}_{0.10})(\text{Al}_{0.05}\text{Fe(III)}_{0.05}\text{Cr}_{0.05})_2(\text{Si}_{1.95}\text{Al}_{0.05}\text{O}_{10})(\text{OH})_2$ . This mineral has been previously described as a Cr Al hisingerite. In coal-lignite seams, yellow-green nontronite beds occur, almost entirely monomineralic, of "chloritic" aspect, with few crystals of dark-brown Cr spinel; almost no pleochroism;  $\gamma = 1.556$ ;  $\alpha = 1.547$ . The chem. analysis corresponds to the structural formula  $(\text{Ca}_{0.05})(\text{Mg}_{1.05}\text{Fe(II)}_{0.05}\text{Ni}_{0.05})(\text{Al}_{0.05}\text{Fe(III)}_{0.05}\text{Ti}_{0.05})(\text{Si}_{1.95}\text{Al}_{0.05}\text{O}_{10})(\text{OH})_2$ , which is that of an Fe Mg parahalloysite. The x-ray diagram shows a relatively low degree of crystallinity. The genesis of the parahalloysites of the Toara formation is characterized by alk. conditions in shoal water lagoons; the nontronitization is intimately related to the serpentinization of the ultrabasic rocks of the area, which accounts for the occurrence of highly magnesian montmorillonites and the peculiar Cr parahalloysite. Besides the nontronites of the River Malka region, other montmorillonites are observed, e.g. in veinlets in brown-green hydrogelsite sediments. Of particular interest is an aluminous saponite, with  $\gamma = 1.548$ ;  $\beta = 1.546$ ;

*O.P. Nadeau, 1964*

$\alpha = 1.535$ , very low pleochroism;  $2V = 40^\circ$ . The chem. formula is  $(Ca_{0.1})(Mg_{0.9}Fe(II)_{0.9}(Al_{1.2}Ti_{0.2}Fe(III)_{0.2})(Si_{1.0}Al_{1.0}O_{10})(OH)_2$ . In its differential-thermal curve are peculiar endothermic effects at  $100-150^\circ$ , a weak effect at  $210-250^\circ$  (probably contamination by hydrogoethite), a strong effect at  $530-615^\circ$ , a weak effect at  $900^\circ$ ; a strong exothermic effect at  $910-950^\circ$ . Beidellite is observed west of village Khabaz, in weathered serpentinites, dove-blue colored, very soft;  $\gamma = 1.552$ ;  $\alpha = 1.535$ ; formula  $(R_{1.0}Ca_{0.1})(Mg_{0.9})(Al_{1.2}Ti_{0.2}Fe(III)_{0.2})(Si_{1.0}Al_{1.0}O_{10})(OH)_2$ . The differential-thermal curve shows endothermic effects at  $160$ ,  $210$ ,  $520-580$ , and  $860^\circ$ ; an exothermic effect at  $870-930^\circ$ . A slightly magnesian montmorillonite in the same sediments is intermixed with carbonates, which also contain some barite, pyrite, and Fe ochers. This montmorillonite is genetically interesting because it was evidently pptd. in sulfate waters derived from oxidized pyrite. The mineral forms scaly aggregates, nonpleochroic;  $\gamma = 1.570$ ;  $\alpha = 1.560$ ;  $2V = -49^\circ$ . Chem. formula:  $(Ca_{0.1})(Mg_{0.9}Fe(II)_{0.9})(Al_{1.2}Ti_{0.2}Fe(III)_{0.2})(Si_{1.0}Al_{1.0}O_{10})(OH)_2$ . A graph is given which shows the isomorphous variability field of the montmorillonite group.

W. Bitel

SERDYUCHENKO, D. P.

Some problems of the mineralogy of silicates. Izv. AN SSSR. Ser. geol. no.  
3:135-146 My-Je '53. (MLRA 6:6)  
(Silicates)

(CA 47 no.22:12140'53)

BETEKHTIN, A.G.; SERDYUCHENKO, D.P.

More news concerning D.P.Serdiuchenko's formula of chlorites.

Izv.AN SSSR. Ser.geol. no.6:130 N-D '53.

(MLRA 7:1)

(Chlorites) (Serdiuchenko, D.P.)

SERDYUCHENKO, D. P., and BERKHIN, S. I.

"Dependence of Roentgenograms of Chlorites Upon Their Chemical Composition, Origin, and Degree of Decrystallization," Mineralog. sb. L'vovsk. geol. o-va, No 7, pp 213-222, 1953

The authors investigated 16 specimens of chlorites from sites in the North Caucasus, among which three were of hydrothermal origin and 13 of sedimentary origin. They establish that the character of the Debyeogram of chlorite depends upon the genesis of the mineral and upon its decrystallization. Hydrothermal chlorites give a more perfect Debyeogram (fine lines of interference, absence of background) than chlorites of sedimentary origin. Debyeograms of chlorites of sedimentary origin permit one to judge the degrees of dispersion and decrystallization of the specimen. In comparing values of  $d$  of all samples, one observes regular decrease of distance among planes  $d001$ ,  $d002$ ,  $d004$ , with increase in quantity of Al in tetrahedral positions. (RZhGeol, No 4, 1955)

Sum. No. 681, 7 Oct 55

*Serdvyuchenko D. P.*

✓ Nature of the spinels from the Archean rocks of southern Yakutia. D. P. Serdyuchenko and V. A. Moleva. Dokl. Akad. Nauk S.S.S.R. 89, 547-50 (1963).--Chem. analyses, x-ray diffraction (about 30 lines), and other mineralogical data are given for 3 spinels (that contain some Fe and Zn). Included is a 4th spinel from this same general region, with chem. analysis and 21 lines of the x-ray diffraction pattern, quoted from a paper by Bobkov and Kazitsyn (C.A. 45, 74724) who claim this spinel to be a new mineral ("magnatunoxide") consisting of a solid soln. of  $K_2O_4$  in spinel; this claim is incorrect and can be explained only by error in chem. analysis and faulty computation of the x-ray data. V. H. Gottschalk

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SERDYUCHENKO, D.P.

Chlorites, their chemical constitution and classification.

Trudy Inst.geol.nauk no.140:1-337. '53.

(MLRA 7:5)

(Chlorites)

USSR

Pargasites from Archean rocks of Lower Yakut. D. P. Serdyuchenko. *Doklady Akad. Nauk S.S.S.R.* 96, 1233-6 (1954).—The metamorphic schists of the Timpton-Aldana area are derived from ancient dolomites and marls by regional and contact-metamorphic changes. Rose-colored granites (alaskites) are the magmatic rocks which are responsible for the metamorphisms. The pargasites of the schists known also as koksharovites are low in Fe, but high in  $Al_2O_3$  and are assocd. with diopside, phlogopite, and black pleonaste spinel. Scapolite is rare in this assocn. The pargasite crystals are usually 1 cm. long, but sometimes develop to 10 and even 20 cm. length, of short-prismatic habit with the forms  $\{110\}\{010\}\{001\}\{100\}\{111\}$ . The prismatic cleavage is excellent, the color dark green. Characteristic is the paragenetic correlation to diopsidic pyroxenes indicated by intergrowths, with the colorless pyroxene included in the weakly pleochroic amphibole. Chem. analyses of 5 pargasites are given. The anions  $OH^-$ ,  $F^-$ , and  $Cl^-$  are accurately detd.; the relatively high content in  $F^-$  and  $Cl^-$  is remarkable; further a certain excess of tetrahedral Si cations in a pargasite of the contact-metamorphic Archean series from Dëss (Ulungui Basin) (6.30 in the place of 6.00) is striking, although the sum of tetrahedral Si and Al is const. = 8. This amphibole has a relatively low  $n$ . In comparison with the normal pargasites from Siudyanka, which do not contain any  $F^-$  or  $Cl^-$ . The abundance in  $R_2O$  (with  $K_2O \geq Na_2O$ ) and the enrichment in  $Al_2O_3$  is also observed in pargasites from Transbalkanian rocks. The spectral analysis demonstrated the presence of Sc, V, Cr, Zr, and traces of Ga, In, Cu, and Be. The x-ray powder diagrams show many more interference lines than usually are observed in amphiboles of the tremolite-actinolite type. W. Eitel.

Asbestos-like phlogopite from S. Yakut. D. P. Serdyukov. *Doklady Akad. Nauk S.S.S.R.* 97, 181-3 (1977).  
 More or less dark-colored phlogopite replaces actinolitic amphibole in a suite of highly metamorphic and contact-metasomatic rocks in the valley of R. Legler. While most of the phlogopite is fine-grained, an asbestos-like, acicular variation is observed, surprisingly similar to chrysotile. The transition of the rather coarse actinolite crystals to the greenish brown phlogopite is striking in cavities filled with a felt of phlogopite needles up to 5 cm. in length. The fibers are elongated parallel to  $\gamma$ ; the crystal forms are (001) and (010). The acicular structure is even preserved if the mineral is finely powdered, with particles  $\leq 1 \mu$ . Relict amphibole is sometimes observed between the phlogopite needles, and brown tabular phlogopite crystals occur between the needles. On the side opposite the amphibole matrix the needles grow to compact scaly mica. Evidently, the acicular modification is only an intermediate formation of phlogopite formed by pneumatolysis, and tends to crystallize in the ordinary tabular shapes. Optical consts. of the needles are  $2V = 0-5^\circ$ ;  $n_\omega = 1.592$ ;  $n_\alpha = 1.550 \pm 0.002$ ; pleochroism distinct, somewhat lower in the tabular form. The chem. analyses show in the acicular modification a relatively higher content in  $Al_2O_3$ ,  $FeO$ , and  $Fe_2O_3$ ,  $BaO$  (1.51%),  $Na_2O$  (1.56%),  $K_2O$ ; but lower  $MgO$ ,  $F$  (0.76%), and  $H_2O+$ , than in the tabular phlogopite (with 1.11%  $BaO$ ;  $-Na_2O$ ; 2.10%  $F$ ; 3.03%  $H_2O+$ ). The needle-shaped phlogopite is a high-temp. formation, with less volatiles. W. Eitel

SERDYUCHENKO, D. P.

USSR Minerals - Mineralogy

Card : 1/1

Authors : Serdyuchenko, D. P.

Title : Crystallochemical role of sodium in magnesia-micaceous iron ore

Periodical : Dokl. AN SSSR, 97, Ed. 2, 315 - 318, July 1954

Abstract : The crystallochemical role of sodium in magnesia-micaceous iron ore is discussed. The crystallochemical formula of these ores is  $K(OH)_2 - (Mg, Fe^{++}) (AlSi_3O_{10})$ . Twelve references. Table.

Institution : ...

Presented by : Academician D. I. Shcherbakov, April 17, 1954

SERDYUCHENKO, D.P.

KOSSOVSKAYA, A.G.; BELYANKIN, D.S., akademik [deceased], glavnyy redaktor; SERDYUCHENKO, D.P., otvetstvennyy redaktor; LADYCHUK, L.P., redaktor; GRAKOVA, Ye.D., tekhnicheskiiy redaktor.

Lithological and mineralogical characteristics and conditions of clay formations of the producing series of Azerbaijan. Trudy Inst. geol.nauk no.153:3-107 '54. (MLRA 8:3)  
(Azerbaijan--Clay)

SERDYUCHENKO, D. P.

Category: USSR

Abs Jour: RZh--Kh, No 3, 1957, 7833

Author : Serdyuchenko, D. P.

Inst : Geologic Society of Lvov University

Title : Sepiolites, Mountain Cork, and "Attapulgitites"

Orig Pub: Mineralog. sb. L'vovsk., Geol. O-vo Pri Un-ta, 1955, No 9, 156-171

Abstract: A survey. Included are 28 chemical analyses, Debye crystallograms, and thermograms on sepiolites and mountain cork specimens. The term "attapulgitite" must definitely be abandoned. The bibliography lists 35 items.

Card : 1/1

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SERDYUCHENKO, D. P.

USSR/Cosmochemistry - Geochemistry. Hydrochemistry, D

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61326

Author: Serdyuchenko, D. P.

Institution: None

Title: On Some Sedimentary-Metamorphic Facies Rich in Boron

Original

Periodical: Dokl. AN SSSR, 1955, 102, No 4, 823-826

Abstract: From personal observations and literature data the author has ascertained a widespread development in archean and proterozoic beds of rocks rich in boron-formed from marine boron-bearing sediments. During metamorphism of these rocks the borates either underwent recrystallization or were partially or completely decomposed with separation of dispersed magnetite and magnesium hydrocarbonates. These secondary conversions of boron were promoted by its increased reactivity and chemical mobility.

Card 1/1

SERDYUCHENKO, D. P.

Grossularite and andradite from the Archean complex of the Aldan Plateau. D. P. Serdyuchenko. Doklady Akad. Nauk S.S.S.R. 104: 170-171 (1955). Andradite skarns are widespread in calciphyres and marbles of the S. Yakutian Aldan Plateau, in contact with alaskitic granites. The characteristic mineral assemblage is that of andradite, epidote, magnetite, pyroxenes, amphiboles, actinolite, phlogopite, and pyrite, often interspersed with nearly monomineralic garnet lenses, with grains of 1 to 2 cm. in diam. of isotropic brown crystals, in calcite. A black andradite garnet in diopside-amphibole-phlogopite skarns is associated with amphibole-pyroxene-plagioclase (andesine) paragneiss, and injected quartz-feldspar veins. The andradite often replaces amphibole, and forms aureoles around epidote aggregates. Yellow-green crystals of a different garnet are sporadically interspersed in the andradite-epidote-actinolite skarns; the crystals are well-developed [211], of about 4 mm. This garnet is much younger than the dark-colored andradite, and characterized by a strong anomalous birefringence, with grayish white interference colors in thin sections, sometimes also with polysynthetic twinnings (as above 1.780; d. 3.76). It is also an andradite; the chem. analysis shows  $\text{Ca}_2\text{Fe}_2(\text{III})(\text{SiO}_3)_8$  87.2 and  $\text{Ca}_2\text{Al}_4(\text{SiO}_3)_8$  10.8%.

(O.V. - R.)



*ULTRAMAFIC AND ANDRADITE*

The dark-colored andradite contains besides  $\text{Ca}_2\text{Fe}_2(\text{III})(\text{SiO}_4)_2$ , 73.3, and  $\text{Ca}_2\text{Al}_2(\text{SiO}_4)_2$ , 14%, not less than 7.8% of the mol.  $\text{Fe}_2(\text{II})\text{Fe}_2(\text{III})(\text{SiO}_4)_2$ , which S. calls "ferris-kiaigite." The mols. of pyrope and almandite are entirely absent in the yellow-green andradite. In the Saalakh Creek there occur rose-colored alaskites with transitions into injection gneisses (migmatites), intercalated diopside-phlogopite rocks, and calciphyres with yellow-orange colored chondrodite, spinel, scapolite, and sphene. The calciphyres are interbedded sometimes by biotite paragneisses with hedenbergite, and a grass-green or honey-yellow grossularite (isotropic;  $n = 1.750$ ). The analysis shows only  $\text{Ca}_2\text{Fe}_2(\text{III})(\text{SiO}_4)_2$ , 4.1;  $\text{Fe}_2(\text{II})\text{Fe}_2(\text{III})(\text{SiO}_4)_2$ , 4.7;  $\text{Ca}_2\text{Al}_2(\text{SiO}_4)_2$ , 82.5%.

W. Eitel

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15-57-1-396

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,  
pp 63-64 (USSR)

AUTHOR: Serdyuchenko, D. P.

TITLE: Some Types of Metasedimentary Mineral Formations  
(O nekotorykh tipakh osadochno-metamorficheskogo  
mineraloobrazovaniya)

PERIODICAL: Vopr. mineralogii osadoch. obrazovaniy. Books 3-4,  
L'vov, L'vovsk. un-t, 1956, pp 486-515.

ABSTRACT: The author considers the formation of scapolite and  
apatite rocks. Scapolite and scapolite rocks of three  
genetic types occur in Archean crystalline schists of  
southern Yakutia. 1) Scapolite schists of metasedi-  
mentary origin mostly form tabular nests, flattened  
lenticular layers, and beds. Scapolite forms thin  
layers and small nests, and also occurs in diopside-  
scapolite, hornblende-scapolite, tourmaline-scapolite,  
and other rocks. In monomineralic or almost mono-  
mineralic tabular bodies of scapolite, the scapolite

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15-57-1-396

Some Types of Metasedimentary Mineral Formations (Cont.)

mica-like grains of scapolite replace feldspar along the cleavage faces (010) and (001) and along composition planes. 3) Long, large acicular crystals and intergrowths of scapolite have developed locally in the Khatyma basin in the metasomatic contact zone between alaskitic granites and pegmatites on the one hand and marbles and lime silicates on the other. The scapolite is probably partly recrystallized, developing large individuals reaching 6 cm to 8 cm in length. It commonly forms intergrowths with coarsely crystalline grains of diopside, and also with dark green hornblende. About six percent  $K_2O$  and more than three percent  $MgO$  has been discovered in milk-white scapolite. Coarsely crystalline scapolite was formed in the immediate contact zone between rose-colored pegmatite granites and marmorized magnesian Archean limestones. The tabular occurrence of scapolite schists, the alternation of almost monomineralic scapolite bodies with scapolite-pyroxene-hornblende and pyroxene-garnet schists and with marbles and lime silicates, and the presence of scapolite in these last rocks--all these indicate a metasedimentary origin, not only of the host rocks, but of the scapolite rocks themselves. Small accumulations of

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15-57-1-396

Some Types of Metasedimentary Mineral Formations (Cont.)

apatite have been found in Archean crystalline schists in Aldan. The rocks containing the apatite are pyroxene, diopside-hornblende, amphibole, and tourmaline-diopside-andesine parashists. The apatite, included in profoundly metamorphosed ancient sedimentary rocks, was formed by metamorphism of sedimentary phosphatic accumulations. Wax-red or brownish-red crystals of apatite are found in the basin of the Legliyer River along metasedimentary pyroxene-amphibole and pyroxene-scapolite rocks. They contain very small reddish inclusions, in places distributed uniformly, in places disseminated spottily, in places occurring in almost parallel or obliquely inclined zones of irregular width. This apatite is distinguished from the apatite occurring in the leucocratic granites by its microscopic features and the turbidity due to its dot-like inclusions. The apatite of Aldan is fluorapatite. Cl is absent in the mineral. A considerable quantity of  $\text{Fe}_2\text{O}_3$  is present, but FeO is also absent. Organic substance is another impurity of the apatite. It is burned off on heating, and in the process the apatite is bleached. The presence of ferruginous and organic

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Some Types of Metasedimentary Mineral Formations (Cont.)<sup>15-57-1-396</sup>

admixture in the apatite points to a metasedimentary origin for  
the mineral.  
Card 5/5

G. A. G.

SERDYUCHENKO, D. P.

27 27  
Minerals of boron and titanium in some sedimentary  
metamorphic rocks. D. P. Serdyuchenko, *Trudy Geol.  
Inst. Akad. Nauk S.S.S.R.* 1956, No. 6, 83-124. — A re-  
view of B and Ti minerals with respect to their geol. oc-  
currence, chem. analysis, and crystallographic characteris-  
tics. Extensive bibliography. C. H. Fuchsman.

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SERDYUCHENKO, D.P.

USSR/Cosmochemistry. Geochemistry. Hydrochemistry. D

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 265<sup>4</sup>3.

Author : Serdyuchenko, D.P.

Inst : Geological Society at Lvov University.

Title : Classification of Montmorillonite Minerals.

Orig Pub : Mineralog. sb. L'vovsk. geol. o-vo pri un-te,  
1956, No. 10, 132 - 134.

Abstract : All the minerals close to montmorillonite  
are divided into 4 groups according to  
crystallochemical characteristics: 1/ mont-  
morillonites in the narrow meaning of the  
term (SiIV = 4.0 to 3.8), 2/ beidellites  
(SiIV = 3.79 to 3.60), saponites (SiIV = 3.59  
to 3.40), and 4/ paragalloisites - montmoril-  
lonites with little silicium content (SiIV =  
3.39 to 3.14, or even to 3.00). Depending

Card 1/3

SE RDYUOTET...  
 17  
 Alumoferroascharite, a new mineral. D. P. Serdyuchenko. *Zapiski Vsesoyuz. Mineralog. Obshchestva* 66: 262-27 (1969).—Previous descriptions (cf. C.A. 50: 2373f) have been given of borate minerals and abundant tourmaline, especially lenses of szaibelyite (ascharite) and ludwigite (assoc. with magnetite) and single prismatic crystals of warwickite, in metamorphic sedimentary rocks of southern Yukatiya. In contacts with dolomitic encliphyres, cliondrodrite and clinohumite occur, transient to phlogopite-diopside-magnetite-serpentinites and tourmaline schists with diopside and plagioclase. The ludwigite of these rocks is often changed to szaibelyite, but also to a szaibelyite-like mineral of a peculiar dove-gray color which has higher  $n$ s than normal ( $\alpha$  1.587,  $\beta$  1.670,  $\gamma$  1.685), with a considerable replacement of  $B_2O_3$  by  $Al_2O_3$  and  $Fe_2O_3$  and of  $Al_2O_3$  by  $FeO$ . The formula is  $(Al, Fe)_2O_3 \cdot 4B_2O_3 \cdot 10(Mg, Fe)_2O \cdot 8H_2O$ .  $(Mg, Fe^{II})(OH)(B, Al)_2O_3$  aq. chem. analysis:  $SiO_2$  0.00;  $TiO_2$  0.14;  $B_2O_3$  25.98;  $Al_2O_3$  0.47;  $Fe_2O_3$  4.30;  $FeO$  8.70;  $MnO$  0.14;  $MgO$  35.33; no  $CaO$ ;  $Na_2O$  1.46;  $K_2O$  0;  $F$  0.16;  $H_2O$  at  $240^\circ$  4.00%;  $H_2O$  at  $105^\circ$  1.69%. Optically neg.,  $2V$  (calcd.)  $44^\circ$ ; elongation  $\parallel c$ . The x-ray powder diagram is very similar to that of szaibelyite from Hannover and India. The differential-thermal analysis curve shows endothermic peaks at  $240-60^\circ$ ;  $420-70^\circ$ ;  $600-80^\circ$ . The  $H_2O$  loss is 4.0% from  $160$  to  $240^\circ$ ; 5% between  $400$  and  $450^\circ$ ; 8% between  $600$  and  $680^\circ$ . At higher temps. the mineral is decompd., and anhydrous new cryst. phases are formed. The intermediate formation of alumoferroascharite in the first stages of the metasomatic decompn. of ludwigite (with 3-4%  $Al_2O_3$ ) is characteristic; it is later changed to the normal szaibelyite, with pseudomorphs of magnetite + szaibelyite + calcite after ludwigite.  
 W. E. E. C.



SERDYUCHENKO, D P.

3(8)

PHASE I BOOK EXPLOITATION

SOV/1575

Akademiya nauk SSSR. Sovet po izucheniyu proizvoditel'nykh sil

Ocherki osadochnykh mestorozhdeniy poleznykh iskopayemykh (Description of Sedimentary Mineral Deposits) Moscow, Izd-vo AN SSSR, 1958. 84 p. 5,000 copies printed.

Resp. Ed.: L.V. Pustovalov, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: G. I. Nosov; Tech. Ed.: S. G. Markovich

PURPOSE: This publication is intended for mining geologists, stratigraphers, petrographers, and mineralogists.

COVERAGE: This collection of articles is devoted to a description of several minerals found in Eastern Siberia, and a discussion of the conditions of their deposition by regions. Individual articles report on the Berezovskoye iron ore deposits, the titaniferous minerals of the Bakal'skoe deposit, the iron ore deposits of the Angaro-Pitskiy basin and the Khoperskiy region. The articles are accompanied by diagrams, tables, and bibliographic references.

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Description of Sedimentary Mineral Deposits (Cont.) SOV/1575

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Yeroshchev-Shak, V.A., and N.Kh. Platonov. Native Iron From Devonian Iron Ores of the Khoperskiy Region	25
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Card 2/3

Birgelya, N.K. Titaniferous Minerals From the  
Bakal'skoye Deposit

61

Sokolova, Ye.I., and A.A. Ryabinina. Physicochemical Study  
of Iron Ores and Their Mother Rocks at the Berezovskoye  
Deposit in Zabaykal'ye

73

AVAILABLE: Library of Congress

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MM/mtl  
4-30-59

SERDYUCHENKO, D.P.

11-1-4/29

AUTHOR: Shabynin, L.I.

TITLE: The Genesis of South Yakutsk Iron Ore Deposits (O genezise yuzhno-yakutskikh zhelezorudnykh mestorozhdeniy)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1958, # 1, pp 43-61 (USSR)

ABSTRACT:

The article deals with the principal characteristics of geological structures and the composition of rocks and ore deposits of the South Yakutsk iron ore deposits, inclusive the complex boron-iron ores. The author reviews the various conceptions of the formation of these deposits, whereby the sedimentary-metamorphic genesis is being refuted, and the skarn character proven. There are no analogies in the USSR to the Pre-Cambrian South Yakutsk crystalline complex iron deposits of the Aldan shield. The questions of genesis of these deposits have been examined lately by several geologists, whereby the following 3 viewpoints were expressed: 1. The deposits are of the contact-metasomatic type (D.S. Korzhinskiy, L.I. Shabynin). 2. Mineral deposits are formed as a result of regional metamorphism of sediments with high iron and boron concentrations; only in some locations occurred a shifting of iron and boron (D.P. Serdyuchenko). 3. Iron

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The Genesis of South Yakutsk Iron Ore Deposits

11-1-4/29

ores and the surrounding calcareous-magnesium and magnesium rocks are formed as a result of regional metasomatic replacement of Pre-Cambrian rocks in connection with the erosion of potassium, magnesium and iron from the place of granitization and transfer into higher structural strata (N.G. Sudovikov, M.D. Krylova). The iron ore deposits of South Yakutsk can be subdivided into the following four territorial groups: 1. South-west - Nirichevskoye, Levo and Pravo Desovskoye deposits. 2. South - Sivaglinskoye, Pionerskoye and Komso-mol'skoye deposits. 3. North and north-west - Yemel'dzhanskoye and Tsentral'no-Aldanskoye deposits. 4. South-east - Tayezhnoye, Magnetitovoye, Legliyerskoye and Tinskoye deposits. The majority of these deposits are found in crystalline layers of the Fedorov formation. With regard to their genetic formation, mineral composition and skarns, all of these iron ore deposits are of the same type. A very characteristic property of the structure is the clearly discernable metasomatic zoning of the examined deposits. Mineral paragenesis of magnetic ores of the main phase (high temperatures) at South Yakutsk is uniform. With regard to ores, the author distinguishes between 2 types of paragenesis: 1. magnesium skarns formed in dolomites. 2. paragenesis occurring

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The Genesis of South Yakutsk Iron Ore Deposits

11-1-4/29

at the replacement of ores by rocks located close to skarns and skarned granites, magmatic crystalline formations and gneiss rocks. The author gives a detailed description of the chemical composition and the geological structure of rocks of these two groups. All geologists who have studied the Aldan shield agree that the most outstanding characteristic of rocks of this complex is the absence of changes of mineral composition caused by middle and low temperatures. In places, where such changes were found to have occurred, they were always the result of recent magmatism or processes of ore forming. The author disagrees with the conceptions of D.P. Serdyuchenko, who believes the Aldan deposits to be of sedimentary-metamorphic origin. There are 1 figure, 6 photographs, 25 Russian, 1 Swedish, 2 Japanese, 1 German and 3 British references.

ASSOCIATION: Geologic Institute of Mineral Deposits, Petrography, Mineralogy and Geochemistry of the USSR Academy of Sciences, Moskva (Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva)

AVAILABLE: Library of Congress  
Card 3/3

SERDYUCHENKO, D.P.

✓ Composition and genesis of dumortierites. D. P. Serdyuchenko. (Committee Study of Productive Capacities, Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk S.S.S.R., Ser. Geol.* 1958, No. 2, 109-14. — A review with a table of chem. analyses of dumortierites from different deposits. 22 references. Gladys S. Macy

2

SERDYUCHENKO, D.P.

Magnesioferrites and titanospinels from the Cambrian in the  
Aldan. Min.sbor. no.12:233-245 '58. (MIRA 13:2)

1. Sovet po izucheniyu proizvoditel'nykh sil AN SSSR, Moskva.  
(Aldan Plateau--Spinel group)



SERDYUCHENKO, D.P.; KADENSKIY, A.A.

Xenolites and pectolites in Caucasian and other deposits. Zap.  
Vses. min. ob-va 87 no.1:31-47 '58. (MIRA 11:6)  
(Caucasus--Wollastonite)

SERDYUCHENKO, D.P.; MOLEVA, V.A.

Titinospinels from dedolomitized Cambrian rocks in southern Yakutia.  
Zap. Vses. min. ob-va 87 no.6:691-695 '58. (MIRA 12:3)  
(Yakutia--Spinel group)

SERDYUCHENKO, Dmitriy Petrovich; LEVCHENKO, S.V., kand.geol.-min.nauk,  
otv.red.; SLUTSKER, A.S., red.izd-va; MAKUHI, Ye.V., tekhn.red.

[Granites of the southern Timan and their accessory minerals]  
Granity Iuzhnogo Timana i ikh aktsessornye mineraly. Moskva,  
Izd-vo Akad.nauk SSSR, 1959. 102 p. (MIRA 12:6)  
(Timan Ridge--Granite)

3(5)

SOV/11-59-8-4/17

AUTHOR: Serdyuchenko, D.P.

TITLE: The Origin of the Archeian Iron Ores of Southern Yakutiya

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 8, pp 34 - 49 (USSR)

ABSTRACT: The author gives a detailed description of the magnetite ore deposits enclosed in the Archeian metamorphic strata of Southern Yakutiya. The sedimentary origin of these iron ore deposits is affirmed by the author and he disagrees with the opinion of L.S. Shalynin that these deposits are of contact-metasomatic origin, as expressed in latter's article entitled "On the Genesis of South Yakutiya Iron Ore Deposits", published in Nr 1, 1958, of this periodical. According to the author, some of the main features of these deposits are: the appurtenance of the magnetite deposits to a metamorphic sedimentary complex of rocks composed of different transformed gneisses, dolomites,

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SOV/11-59-8-4/17

The Origin of the Archeian Iron Ores of Southern Yakutiya

schists, gneisso-quartzites and quartzites; a strict association of these deposits with a determined stratigraphic horizon - the Fedorovskaya suite of the Iengra series (Archeian era), tens of km long and more than 1 km thick; the faulting of the ore-bearing and other covering suites by granite intrusions, which occurred after the formation of the ore-bearing beds. The study of core samples taken from rocks of the Iengra series showed that there are 3 ore-bearing horizons, the upper - a hematite-quartzite horizon, the middle magnetite-silicate horizon and the lower magnetite and hematite-quartzite horizon. The opinion of all geologists is that magnetite-quartzites and hematite-quartzites of Pre-Cambrian formations all over the world are of sedimentary-metamorphic origin. The inference is that during the formation of ancient sediments of the Iengra series on the Aldan Shield, the accumulation of iron occurred under changeable facial conditions. After the metamorphic period and after the granite intrusion these accumulations acquired the presently observed

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SOV/11-59-8-4/17

The Origin of the Archeian Iron Ores of Southern Yakutiya

composition. The author describes in detail all main commercial deposits of the Iengra series: Nerichi and Dess, Sivagli, Pionerskoye and Komsomol'skoye, Tayezhnoye, Magnetitovoye, Legliyer, Tin, the El'medzhak group of magnetite and phlogopite deposits and the Central-Aldan deposits, the last ones associated with contacts of Mesozoic syenite porphyres with the Cambrian dolomites. In each separate case he refutes the findings of L.S. Shalynin concerning the contact-metasomatic origin of these deposits. Actually, the author admits that small magnetite ore-bodies, located in zones of contact between Cambrian dolomites, laccolite and dyke-like bodies of Upper-Jurassic granite-porphyres and syenite-porphyres of the Central Aldan region of Southern Yakutiya, are of contact-metasomatic origin. They form a narrow belt along the line of contact of volcanic carbonaceous rocks. The following geologists are mentioned by the author: D.S. Korzhinskiy, M.A. Litsarev, V.A. Pavlov, V.A. Pervago, L.M. Minkin, V.F. Kozlov, V.K. Kotul'skiy, N.G.

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SOV/11-59-8-4/17

The Origin of the Archeian Iron Ores of Southern Yakutiya

Sudovikov, N.A. Yelisseyev, V.S. Sobolev, G.D. Afanas'yev, A.P. Lebedev, P.N. Chirvinskiy and A.Ye. Torneboom. There are 8 photographs, 1 set of diagrams and 36 references, 31 of which are Soviet, 2 English, 2 Swedish and 1 German.

ASSOCIATION: Sovet po izucheniyu proizvoditel'nykh sil AN SSSR, Moskva (Council for the Study of Productive Forces of the AS USSR, Moscow)

SUBMITTED: June 9, 1958

Card 4/4

SERDYUCHENKO, D.P.

Calciotalc, the new mineral. Zap.Vses.min.ob-va 88 no.3:298-304 '59.  
(MIRA 12:11)

1. Daystvitel'nyy chlen Vsesoyuznogo mineralogicheskogo obshchestva.  
(Legleger Valley--Talc)



PUSTOVALOV, L.V., otv.red.; GIMMEL'FARB, B.M., red.; KRASHENINNIKOV,  
G.F., red.; SARKISYAN, S.G., red.; SERDYUCHENKO, D.P., red.;  
TEODOROVICH, G.I., red.; SHVETSOV, M.S., red.; SMIRNOVA, Z.A.,  
red.izd-va; IVANOVA, A.G., tekhn.red.

[Problems of sedimentology; reports of Soviet geologists for  
the Sixth International Congress of Sedimentology] Voprosy sedi-  
mentologii; doklady sovetskikh geologov k VI Mezhdunarodnomu  
kongressu po sedimentologii. Moskva, Gos.nauchno-tekhn.izd-vo  
lit-ry po geol. i okhrane neдр, 1960. 215 p.

(MIRA 14:3)

1. International Congress of Sedimentology. 6th, Copenhagen,  
1960.

(Rocks, Sedimentary)

SERDYUCHENKO, D.P.; GLEBOV, A.V.; KADENSKAYA, M.I.; LEONOVA, Ye.P.;  
KADENSKIY, A.A.; PAVLOV, V.A.; PUSTOVALOV, L.V., otv.red.;  
KOTLYAREVSKAYA, P.S., red.izd-va; GUS'KOVA, O.M., tekhn.red.

[Iron ores of southern Yakutia; geology, mineralogy, genesis and  
industrial importance] Zheleznye rudy Iuzhnoi Iakutii; geologiya,  
mineralogiia, genezis i promyshlennoe znachenie. Moskva, Izd-vo  
Akad.nauk SSSR, 1960. 519 p. (MIRA 13:6)

1. Chlen-korrespondent AN SSSR (for Pustovalov).  
(Yakutia--Iron ores)

SERDYUCHENKO, D.P.

Chlorites in sedimentary rocks. Biul.MOIP.Otd.geol. 35  
no.1:122-123 Ja-F '60. (MIRA 13:7)  
(Chlorites) (Rocks, Sedimentary)

S/081/61/000/017/024/166  
B102/B138

AUTHOR: Serdyuchenko, D. P.

TITLE: Boric sedimentary-metamorphic formations

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 101,  
abstract 17762 (Sb. "Vopr. sedimentologii", M.  
Gosgeoltekhizdat, 1960, 132 - 140)

TEXT: The biggest segregations of borate ores are usually confined to early metamorphized strata in which magmatic rock is often intruded, which is, according to many researchers, the main source of B in other useful components. Published data show, however, that the B content in sedimentary rocks (especially in halogenous, clayey, magnesia-calcium and ferrous rocks) is many times higher than in eruptive ones. The main signs of the sedimentary origin of early boron-containing rocks are: their restriction to certain stratigraphic horizons consisting of undeniably sedimentogenic layers and bands; a considerable persistence along the strike and the dip of individual B-bearing facies and complexes, etc. In these early and relatively young stratified sedimentary strata,

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Boric sedimentary-metamorphic...

S/081/61/000/017/024/166  
B102/B138

the formation of various boron-rich, sedimentary-metamorphic facies occurs in dependence on the geochemical and thermodynamic conditions of metamorphization. Examples of the conditions of formation of these phases are given. [Abstracter's note: Complete translation.]

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Card 2/2

SERDYUCHENKO, D.P.; BELOV, N.V.

Concerning the so-called "sulunite." Zap. Vses. min. ob-va 89 no.3:  
367-368 '60. (MIRA 13:8)

(Chlorites)

SERDYUCHENKO, D.P.

More on the green mica from the Pre-Cambrian thick series of  
the Kursk Magnetic Anomaly. Zap. Vses. min. ob-va 89 no.4:486-  
490 '60. (MIRA 13:11)  
(Kursk Magnetic Anomaly--Mico)

SERDYUCHENKO, D. P., Institute of Geology and Mineral Deposits, Petrography, Mineralogy,  
and Geochemistry, Academy of Sciences USSR

"Complex research in clay minerals"  
(Section V) (Also Co-Chairman, Section IV)

report to be submitted for the Second Conference on Clay Mineralogy and Petrography,  
Prague, Czech., 10-17 May 1961.



LISTOVA, Lidiya Pavlovna; SERDYUCHENKO, D.P., doktor geol.-mineral.nauk,  
otv.red.; VLASOV, L.G., red.izd-va; LEBEDEV, L., tekhn.red.

[Physicochemical investigations of oxide and carbonate manganese  
ore formation conditions] Fiziko-khimicheskie issledovaniia  
uslovii obrazovaniia okisnykh i karbonatnykh rud margantsa.  
Moskva, Izd-vo Akad.nauk SSSR, 1961. 118 p.

(MIRA 14:3)

(Manganese ores)

(Geochemistry)

SERDYUCHENKO, D.P., prof., doktor geol.-mineral.nauk, otv.red.;  
SHEYNMAN, V.S., red.izd-va; MAKUNI, Ye.V., tekhn.red.

[Studies on the metallogeny of sedimentary rocks] Ocherki po  
metallogenii osadochnykh porod. Moskva, 1961. 371 p. (MIRA 14:6)

1. Akademiya nauk SSSR. Laboratoriya osadochnykh poleznykh  
iskopayemykh. 2. Rukovoditel' sektora mineral'no-syr'yevykh  
resursov Soveta po izucheniyu proizvoditel'nykh sil AN SSSR (for  
Serdyuchenko).

(Rocks, Sedimentary)

(Ore deposits)

S/081/62/000/004/017/087  
B149/B101

AUTHOR: Serdyuchenko, D. P.

TITLE: Rare-earth mineralization in sedimentary metamorphic rocks

PERIODICAL: Referativnyi zhurnal. Khimiya, no. 4, 1962, 119, abstract  
4G57 (Sb. "Ocherki po metallogenii osadochn. porod", M.,  
AN SSSR, 1961, 14 - 48)

TEXT: Orthite, sphene and monazite are widely distributed in the sedimentary-metamorphic rocks of Southern Yakutia. The results of chemical and X-ray studies of these minerals are given. Descriptions are provided of the environmental situations in which the TR compounds are found in ancient metamorphic sediments of other countries according to published informations. Much larger separations of these minerals can be observed in ancient rocks of migmatization zones of biotites and other paragneisses with small-grained syngenetic orthite and sphene. Similar cumulative recrystallization of minerals takes place under processes of skarnation, phlogopite-formation, and the action of K-enriched postmagmatic solutions. This demonstrates that pre-cambrian sedimentary-metamorphic rock masses contain considerable

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Rare-earth mineralization ...

S/081/62/000/004/017/087  
B149/B101

concentrations of TR bound with Fe ores and accompanying carbon-bituminous, clayey-quartz and calcareous-magnesium carbonate rocks. The initial accumulation of TR occurred in ancient shallow-littoral sea areas and lagoon-like basins, as a result of joint sedimentation with Fe; it occurred also due to sorptive processes in ferrous, clayish and carbon-bituminous colloidal formations, and was accompanied by relative concentrations of P, F, and CO<sub>2</sub> (in specific facial conditions). Under dynamometamorphic influences and intrusion of igneous masses all these rocks and ores were subjected to a plutonic metamorphosis, migmatization and skarnation. The erupted rocks have partly assimilated from the adjoining depositions Fe and TR compounds and caused their local metasomatic shifts. [Abstracter's note: Complete translation.]

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S/081/62/000/001/013/067  
B156/B101

AUTHOR: Serdyuchenko, D. P., Glebov, A. V.

TITLE: Accessory boric minerals in precambrian Aldan

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1962, 124, abstract  
1058 (Sb. "Ocherki po metallogenii osadochn. porod". M.,  
AN SSSR, 1961, 49-71)

TEXT: The results are given of a mineralogical study of the parageneses of various borate minerals: dumortierite, datolite, serendibite, axinite, syngalite, warwickite, kotoit and fluoborite; these have been found in precambrian metamorphized deposits in the Aldan. The optical and radio-graphic properties of each mineral, and the chemical composition of serendibite (5 specimens) are described. Hypotheses are stated, on the basis of details given by other research workers, regarding the conditions under which these minerals are formed. [Abstracter's note: Complete translation.]

Card 1/1

BEUS, A.A., doktor geol.-miner. nauk; SEVEROV, E.A.; SITNIN, A.A.;  
SUBBOTIN, K.D.; SERDYUCHENKO, D.P., doktor geol.-miner. nauk,  
otv. red.; GRISHINA, T.B., red.izd-va; POLYAKOVA, T.V., tekhn.  
red.

[Albitized and greisenized granites (apogamites)] Al'bitiziro-  
vannye i greizenizirovannye granity (apogranity). Moskva, Izd-  
vo Akad. nauk SSSR, 1962. 195 p. (MIRA 16:2)

1. Laboratoriya geokhimii metasomaticheskikh protsessov, svya-  
zannykh s granitoidami Instituta mineralogii, geokhimii i kri-  
stallokhimii redkikh elementov (for Beus, Severov, Sitnin,  
Subbotin).

(Granite) (Trace elements)

SERDYUCHENKO, D.P.; PAVLOV, V.A.

Composition and classification of axinites. Zap. Vses. min. ob-va  
91 no.1:81-84 '62. (MIRA 15:3)

(Axinite)

POTEMKIN, K.V.; SPITSYN, A.N.; VLASOV, K.A., glav. red.; SERDYUCHENKO,  
D.P., doktor geol.-miner. nauk, otv. red.; RADZINSKAYA, M.V.,  
red.izd-va; YEPIFANOVA, L.V., tekhn. red.

[Rare elements in the placer deposits of foreign countries]  
Redkie elementy v rossypiakh zarubezhnykh stran. Moskva,  
Izd-vo Akad. nauk SSSR, 1963. 99 p. (MIRA 16:4)

1. Chlen-korrespondent Akademii nauk SSSR (for Vlasov).  
(Metals, Rare and minor) (Placer deposits)



BURKOV, Vladimir Viktorovich; PODPORINA, Yevgeniya Kuz'minichna;  
SERDYUCHENKO, D.P., doktor geol.-mineral.nauk, otv.red.;  
VLASOV, K.A., glavnyy red.; GRISHINA, T.B., red.izd-va;  
GUS'KOVA, O.M., tekhn.red.

[Strontium; mineralogy, geochemistry, and main types of deposits]  
Strontsii; mineralogiia, geokhimiia i glavnye tipy mestorozhdenii.  
Moskva, Izd-vo Akad. nauk SSSR, 1962. 178 p. (Akademiia nauk  
SSSR. Institut mineralogii, geokhimi i kristallokhimii redkikh  
elementov. Trudy, no.12). (MIRA 16:2)

1. Chlen-korrespondent AN SSSR (for Vlasov).  
(Strontium)

SERDYUCHENKO, D.P., prof. (Moskva)

In memory of Academician V.I. Vernadskii. Priroda 51 [i.e. 52]  
no.5:87 '63. (MIRA 16:6)

(Vernadskii, Vladimir Ivanovich, 1863-1945)

SERDYUCHENKO, D.P.

Formation and disintegration of orthite in metamorphic  
rocks. Trudy IMGRE no.17:3-14 '63. (MIRA 16:11)

SERDYUCHENKO, D.P.

Vivianite and pyrite in the Upper Devonian shells of the  
southern Timan Range. Trudy Geol. muz. AN SSSR no.14:39-  
43 '63.

(MIRA 17:11)

SEEDYUCHENKO, D.F.

Discussion on "Ferriphlogopite" from Japan. Zap. Vses. min.  
ot-va 92 no.6:748-750 '63. (MIRA 12:3)

VLASOV, K.A., glav. red.; SERDYUCHENKO, D.P., doktor geol.-min.  
nau, red.; YES'KOVA, Ye.M., kand. geol.-miner. nauk, red.;  
BORODIN, L.S., kand. geol.-miner. nauk, red.

[Geochemistry, mineralogy, and genetic types of rare element  
deposits] Geokhimiia, mineralogiia i geneticheskie tipy me-  
storozhdenii redkikh elementov. Moskva, Izd-vo "Nauka."  
Vol.1. [Geochemistry of rare elements] Geokhimiia redkikh  
elementov. 1964. 685 p. (MIRA 17:5)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh  
elementov. 2. Chlen-korrespondent AN SSSR (for Vlasov).

KUZ'MENKO, M.V.; AKELIN, N.A.; SERDYUCHENKO, D.P., doktor  
geol.-miner. nauk, prof., otv. red.

[Genesis of subalkaline granitoids and albitites connected with them and the distribution of tantalum and niobium in them] Genezis subshchelochnykh granitoidov i svyazannykh s nimi al'bitov i zakonomernosti raspredeleniia v nikh tantala i niobiia. Moskva, Naika, 1965.  
119 p. (MIRA 18:6)

PUSTOVALOV, L.V., otv. red.; AL'TGAUZEN, M.N., doktor geol.-min. nauk, red.; VLAS'K.A., red.[deceased]; DOLGOFILOV, N.N., red.; IVENSEN, Yu.P., doktor geol.-min.nauk, red.; POZHARITSKIY, K.L., doktor geol.-min. nauk, red.; SERDYUCHENKO, D.P., doktor geol.-min. nauk, red.; KRASNOVA, N.E., red.

[Metals in sedimentary formations; heavy nonferrous, minor and rare metals] Metally v osadochnykh tolshchakh; tiazhelye tsvetnye metally malye i redkie metally. Moskva, Nauka, 1965. 389 p. (MIRA 19:1)

1. Moscow. Laboratoriya osadochnykh poleznykh iskopayemykh.



SERDYUCHENKO, D.P.

One more on the aluminoferroascharite. Zap.Vses.Min.ob-va 94 no.2:  
247-250 '65. (MIRA 18:5)

SERDYUCHENKO, D.P.

"Svital'skit" and its position in the range of tetrasilica  
micas. Zap.Vses.min.ob-va 94 no.5:566-570 '65.

(MIRA 18:11)

1. Deystvitel'nyy chlen Vsesoyuznogo mineralogicheskogo  
obshchestva.

L 18826-63

EWI(1)/FS(v)-2/BDS/ES(a)/ES(j)/ES(c)/ES(k) AMD Pb-4

A/DD

ACCESSION NR: AP3001519

S/0238/63/009/003/0406/0408

AUTHOR: Serdyuchenko, I. Ya.

TITLE: Method of electromechanical continuous registration of blood pressure and pulse during chronic experiments

SOURCE: Fiziologichnyy zhurnal, v. 9, no. 3, 1963, 406-408

TOPIC TAGS: Blood pressure, pulse, hemodynamometry, electromagnetic recording

ABSTRACT: Review of the published literature on methods for continuous recording of peripheral blood pressure of experimental animals revealed that there are no truly satisfactory methods available for the purpose. Author devised therefore a new miniaturized blood-pressure recording apparatus which can be inserted, e.g., into the external carotid artery of a cat and left there without moving regardless of changes in blood pressure. It consists essentially of a piston and cylinder encased in a glass capsule weighing 25 grams and connected to the outside only by two thin wires which register the variations in resistance caused by the changes in relative position of piston in the cylinder, induced

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ACCESSION NR: AP3001519

in their turn by changes in blood pressure. These changes can then be amplified and measured with electromagnetic recording. Orig. art. has: 2 figures.

ASSOCIATION: Kafedra normal'noyi fiziologiyi Dnipropetrovs'kogo medy\*chnogo insty\*tutu (Chair of Normal Physiology of Dnepropetrovsk Medical Institute)

SUBMITTED: 00

DATE ACQ: 21Jun63

ENCL: 00

SUB CODE: AM

NO REF SOV: 006

OTHER: 000

Card 2/2

SERDYUCHENKO, I.Ya.

Asymmetry of tonic effects of the vagus nerves on the heart.  
Fiziol. zhur. 50 no.12:1450-1457 D '64. (MIRA 18:9)

1. Kafedra normal'noy fiziologii Gosudarstvennogo meditsinskogo  
Instituta, Dnepropetrovsk.

CGANISYAN, A.A.; IVANOVA, S.N.; SERDYUCHENKO, V.M.

New method for the implantation of electrodes into the spinal cord of cats and dogs for recording the electric activity of conducting pathways and centers in spontaneous movements. Biul. eksp. biol. i med. 57 no.6:106-108 Je '64.

(MIRA 18:4)

1. Institut vysshey nervnoy deyatel'nosti i neyrofiziologii (dir. - cheln-korrespondent AN SSSR prof. E.A.Asratyan) AN SSSR, Moskva.

FOMICHEVA, A., chertezhnitsa (Tula); SERDYUK, technolog; KHARCHENKO, K.,  
slesar'-lekal'shchik; ZUBOVA, Ye., inzh. (G. Krasnyy Luch, Luganskoy  
oblasti); SHPANEER, B., inzh. (G. Krasnyy Luch, Luganskoy oblasti);  
GIDON, L., inzh. (Moskva) Avramova, L., apparatchitsa, (g. Lisichansk)

Our readers' comments on work nominated for Lenin Prizes. Sov.  
profsoiuzy 17 no.6:31-32 Mr '61. (MIRA 14:3)

1. Tul'skiy zavod "Shtamp" (for Serdyuk). 2. Kirovskiy zavod,  
Leningrad (for Kharchenko).

(Lenin Prizes)  
(Russian literature)

PROKOPENKO, N., inzhener; SERDYUK, A., inzhener.

New method of laying rail tracks. Mast.ugl.5 no.12:6-7 D '56.  
(Mine railroads) (MLRA 10:2)



AUTHOR: Serdyuk, A., Civil Engineer,  
Stalin Prize Winner

SOV/29-59-1-19/26

TITLE: "Pocket" Motor Scooter ("Karmanny" motoroller)

PERIODICAL: Tekhnika molodezhi, 1959, Nr 1, pp 30 - 31 (USSR)

ABSTRACT: The author of this article, Aleksandr Kalinovich Serdyuk, completed his studies in 1931 at the Mining Institute in Dnepropetrovsk and has worked for a long time in the mining industry. The motor scooter described in this article is not his only invention. At the First All-Union Competition in 1932, he was awarded a prize for his coal combine "S-5". In 1948 he obtained the Stalin Prize for his work in this field. He made 26 different inventions.

At the beginning of this article, Engineer A. Ivanov, Deputy Chief of the Laboratory for Engines of the Moscow Aviation Institute, writes the following: Aleksandr Kalinovich Serdyuk, Civil Engineer and Stalin Prize Winner, has recently designed a miniature motor scooter. The design is quite original. The scooter was made of unexpensive sheet metal. Nearly all parts can be punched. This permits a series production of folding motor scooters. Besides, the components

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"Pocket" Motor Scooter

SOV/29-59-1-19/26

may be manufactured in any workshop. More difficult is the problem of tires which ~~should be made by factories~~. Being imported goods they are hardly for sale either. It should be recommended to the Sovnarkhozes in Moscow, Sverdlovsk and Yaroslavl' to start producing tires for small cars and miniature motor scooters. We are confident that wide circles will be interested in this miniature motor scooter. Anyone can build such a vehicle for himself. A. Serdyuk describes this scooter: "I should like to explain why the motor scooter designed by myself is designated for fun as a "pocket motor scooter". My vehicle weighs 20 kg and attains a speed of 30 km/h. Most essential is that it can be folded up in 2-3 minutes. It can be put in an envelope or in an ordinary shopping bag, and then one may go on by tram, bus or subway. The scooter needs no garage. At home it may be hanged against the wall, or placed on the floor like a small suitcase. Its advantages can be seen on the last page of the cover sheet. This vehicle represents a miniature motorcycle with a collapsible frame. Some parts were taken from the bicycle. The major part of the amateur-made elements was manufactured of steel

Card 2/3

ACC NR: AP6036747 (A,N) SOURCE CODE: UR/0433/66/000/011/0031/0032

AUTHOR: Lenkov, L. (Tashkent); Serdyuk, A. (Tashkent); Yezerzha, A. (Tashkent)

ORG: none

TITLE: Knapsack sprayer-duster

SOURCE: Zashchita rasteniy, no. 11, 1966, 31-32

TOPIC TAGS: agriculture crop, agricultural machinery, ~~knapsack~~<sup>plant</sup> sprayer duster, plant disease control

ABSTRACT: A knapsack sprayer-duster for use on small plots, in greenhouses, and in laboratories is described. By using compressed air, it eliminates the necessity of periodic hand pumping and provides constant pressure. A three-liter compressed-air tank designed for 80 atm (gage) pressure and a reservoir of like volume for the spraying solution designed for 4 atm (gage) pressure are mounted on a simple metal frame (see Fig. 1). A schematic of the device is given in Fig. 2. A single filling of the air tank to 60 atm (gage) pressure is sufficient for spraying 40 l of liquid. Tables are given showing the relationship of spray parameters to operating pressure in the reservoir, and indices obtained during operation at 2 atm (gage) pressure.

Card 1/3

UDC:632.981.1/.2

ACC NRIAP6036747

Adaptation for dusting rather than spraying is described.  
The weight of the device in working condition is seven kg.  
It may be assembled in any workshop.

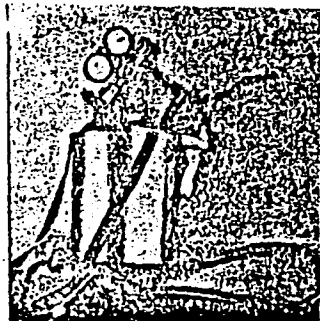


Fig. 1. Sprayer-duster

Card 2/3

ACC NR: AP6036747

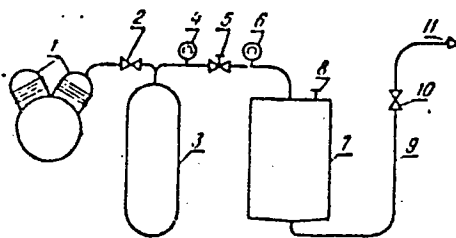


Fig. 2. Schematic of sprayer

1 - Compressor; 2 - needle valve; 3 - compressed-air tank; 4 - manometer (150 atm); 5 - reducer; 6 - manometer (5 atm); 7 - reservoir; 8 - filling pipe; 9 - hose; 10 - needle valve; 11 - nozzle.

[WA-50; CBE No. 14] [EL]

SUB CODE: 02/ SUBM DATE: none

Card 3/3

SERDYUK, A.

Let us talk accounting and control. Obshchestv. pit. no. 5:30-31  
My '61. (MIRA 14:5)

1. Glavnyy bukhgalter Upravleniya rabocheho snabzheniya  
Sverdlovskogo sovnarkhoza.  
(Sverdlovsk Province—Restaurants, lunchrooms, etc.—Accounting)

POLYAKOV, S.N., kand.tekhn.nauk; SERDYUK, A.G., inzh.

Character of the structural state of grain boundaries in carbon  
steel following slow cooling in a subcritical temperature range.  
Trudy Inst.chern.met.AN URSR no.14:37-39 '61. (MIRA 14:10)  
(Steel—Metallography)

SERDYUK, A.I., inzh.; KHODOS, G.I., inzh.

How labor productivity was increased in the "Novo-Druzheskaya"  
mine. Ugol' Ukr. 4 no.3:34-37 Mr '60. (MIRA 13:6)  
(Donets Basin--Coal mines and mining--Labor productivity)



SERDYUK, A. I.

Experiment in rearing silkworms. Biol.v shkole no.3:70  
My-Je '59. (MIRA 12:9)

1. Direktor sredney shkoly No.3 g.Nal'chika Kabardino-Balkarskoy  
ASSR.

(Nal'chik--Sericulture--Study and teaching)

DOBRYANSKAYA, Ye.M., kand.tekhn.nauk; BIRENBERG, B.M., gornyy inzh.;  
SERDYUK, A.I., gornyy inzh.

Effect of individual factors on the labor productivity and  
coal production costs in coal mines; "collection of articles.  
Reviewed by E.M. Dobrianskaia, B.M. Birenberg, A.I. Serdiuk.  
Ugol' 37 no.9:62-63 S '62. (MIRA 15:9)

(Coal mines and mining--Costs)

(Coal mines and mining--Labor productivity)

DOBRYANSKAYA, Ye.M., kand.tekhn.nauk; BIRENBERG, B.M.; SERDYUK, A.I.

Causes of actual labor productivity being less than that predicted  
in mines of the Donetskugol' Combine. Sbor. DonUGI no.28:50-79  
'62. (MIRA 16:8)  
(Donets Basin--Coal mines and mining--Labor productivity)

SERDIUK, A.I.

Effect of the thickness of the seam and the length of the longwall  
on the specific volume of development mining, taking into account  
the geological conditions of working the seams. Sbor. DonUGI  
no.28:89-99 '62. (MIRA 16:8)

(Coal mines and mining)

DATE: 10/10/2013

[illegible]

SERDYUK, A.I., inzh.

Analysis of the dynamics of labor productivity during 1959-1961  
in coal mines under the Dnieper Basin Council of National Economy.  
Sbor. DonUGI no.32:56-62 163. (HRPA 17:10)

SERDIUK, A.I.

Effect of the thickness of the seam, the length of the longwalls, and their loads on the specific length of the supporting workings, taking into account the effect of the geological conditions of the working of the seams. Sbor. DopUGI no.28:100-110 '62.

(MIRA 16:8)

(Coal mines and mining)

SERDYUK, A.I.

Effect of the mine load on the labor used in operations on the  
surface. Sbor. DonUGI no.28:110-118 '62. (MIRA 16:8)  
(Donets Basin--Coal mines and mining)



ACCESSION NR: AT4019310

S/0000/63/003/001/0161/0164

AUTHOR: Chistoserdov, V. G.; Shmeleva, N. A.; Serdyuk, A. M.

TITLE: A study of the crystallization products in the magnesium aluminosilicate system with additions of titanium dioxide

SOURCE: Simpozium po stekloobraznomu sostoyaniyu. Leningrad, 1962. Stekloobraznoye sostoyaniye, vy\*p. 1: Katalizirovannaya kristallizatsiya stekla (Vitreous state, no. 1: Catalyzing crystallization of glass). Trudy\* simpoziuma, v. 3, no. 1. Moscow, Izd-vo AN SSSR, 1963, 161-164

TOPIC TAGS: glass, glass crystallization, magnesium aluminosilicate, cordierite, geikielite, clinoenstatite, titanium dioxide, catalyzed crystallization

ABSTRACT: The crystallization products of glasses of the  $MgO-Al_2O_3-SiO_2-TiO_2$  system and the effect of  $TiO_2$  addition were studied. The dynamics of the formation of crystalline phases were investigated by high-temperature x-ray analysis. The test sample was glass 59 with the composition 61.4%  $SiO_2$ , 18.3%  $Al_2O_3$ , and 20.3%  $NaO$  plus 0.25% silica. Ionization curves were plotted for noncrystalline, crystalline, and quenched glasses at different temperatures. Both ionization curves and thermograms were also recorded for glass 59 containing 10%  $TiO_2$ . It was found

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ACCESSION NR: AT4019310

that during the crystallization of titanium glasses,  $\alpha$ -cordierite is formed through the  $\mu$ -form (metastable, insufficiently identified compound with an average refractive index varying from 1.540 to 1.610). In glasses of microcrystalline structure containing 10-18%  $\text{TiO}_2$ , geikielite and sometimes clinoenstatite are formed together with  $\alpha$ -cordierite. All glasses with 2-18%  $\text{TiO}_2$  crystallized at 1100C showed  $\alpha$ -cordierite as the principal phase, while glass with 10% or more  $\text{TiO}_2$  showed geikielite ( $\text{MgTiO}_3$ ). The phase composition and the microstructure of the resulting ceramics determine their physical-chemical properties;  $\alpha$ -cordierite, with a low coefficient of expansion (about  $10 \times 10^{-7}/\text{degree}$ ), imparts high thermal stability, but the cellular-granular structure limits the possibility of high strength. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 17May63

DATE ACQ: 21Nov63

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 001

Card 2/2

OVCHINNIKOV, V. M., assistant; SERDYUK, A. S., starshiy inzhener

Study of the migration of silver on the surface of a radio-  
ceramic by means of marked atoms. Izv. LETI 59 no.46:346-347  
'62. (MIRA 15:10)

(Dielectrics) (Electrodes)

S/081/62/000/021/032/069  
B149/B101

AUTHORS: Ovchinnikov, V. M., Serdyuk, A. S.

TITLE: Use of labelled atoms to investigate the migration of silver on radioceramic surfaces

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 330, abstract 21K200 (Izv. Leningr. elektrotekhn. in-ta, no. 46, 1961, 346 - 347)

TEXT: Silver is spread from electrodes onto a ceramic surface by sublimating it and subsequent chemisorption on that surface. The rate of silver accumulation on a ceramic surface at 350°C and at a field intensity of 1.5 kv/cm is  $10^{-11}$  g/sec, which corresponds to the rate of silver sublimation over the whole anode surface. In vacuo no migration of silver over a ceramic surface is observed. [Abstracter's note: Complete translation.]

Card 1/1